

Trabuco Canyon Water District

Portola Hills Service Area - Potable Water Rate Review

Final Report / August 2018





August 10, 2018

Trabuco Canyon Water District
Mr. Michael Perea
Interim General Manager
32003 Dove Canyon Dr.
Trabuco Canyon, CA 92679

Subject: Proposed Portola Hills Service Area – Potable Water Rate Review

Dear Mr. Perea,

Raftelis is pleased to submit this Report to Trabuco Canyon Water District (District) regarding our review and proposed potable water rates for customers in the Portola Hills Service Area within the District's service area.

The proposed rates and rate structure reflect the current cost to serve the Portola Hills Service Area customers and are in accordance with industry standards for rate setting practices and current State legal requirements.

It was a pleasure working with you and we wish to express our thanks for the support from you and your staff. If you have any questions, please call me at 213.327.4405 or the Project Manager, Steve Gagnon at 714.351.2013

Sincerely,

A handwritten signature in blue ink, appearing to read 'Sanjay Gaur'.

Sanjay Gaur
Vice President

A handwritten signature in blue ink, appearing to read 'Steve Gagnon'.

Steve Gagnon, PE
Manager

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Background

The Portola Hills Service Area of the Trabuco Canyon Water District (District) is located within the boundaries of the City of Lake Forest and is shown in Figure 1. The District has existing inter-agency service agreements with Irvine Ranch Water District (IRWD) for wholesale water service to the Portola Hills Service Area, and therefore, the District's customers in the Portola Hills Service Area normally receive wholesale water through IRWD. The District is the retail water provider to this area and the District reads meters, bills customers, answers customer inquiries and maintains sections of pipeline that deliver water to the end-user. The District is not proposing to change the wastewater service rates within the Portola Hills Service Area at this time.

The District contracted Raftelis to review the cost of service and water rate structure to the Portola Hills Service Area to ensure that the District's water rates are, (i) based on the cost to serve Portola Hills customers, (ii) consistent with District policies, (iii) based on the existing inter-agency agreements with IRWD and (iv) are consistent with the requirements of State law. This Report is limited to the District's potable water service for the Portola Hills Service Area.

Figure 1: Location of the Portola Hills Service Area of the Trabuco Canyon District



Portola Hills Service Area



Scale: 1 inch = 0.08 miles

Legend:

TCWD Service Area



Current District Water Rates

The District's current water rate structure, which was adopted by the District's Board of Directors (District Board) following a public hearing on December 16, 2015 pursuant to the requirements of State law and in compliance with Proposition 218 (and related statutes), consists of a volumetric rate and a monthly fixed charge, as shown in columns C and G respectively in Table 1. In Table 1, CCF stands for hundred cubic feet. One hundred cubic feet is approximately 748 gallons. The total volumetric rate in column C, includes a Temporary Revenue Stabilization Charge (TRSC), which is explained below and shown in column B. The TRSC is added to the Use Rate shown in column A to yield the total volumetric rate shown in column C. The total fixed charges, shown in column G, include a monthly charge shown in column E and a Water Reliability Emergency Storage Charge (WRESC), which is explained below and is shown in column F.

Table 1: Current Trabuco Canyon Water District Water Rates (Adopted in 2015)

Customer Class	Use Rate	Temporary Revenue Stabilization Charge	Total Volumetric Rate
	(\$/ CCF) (A)	(B)	(C)
Single Family Residential			
Tier 1 (0 - 8 CCF)	\$2.42	\$0.31	\$2.73
Tier 2 (9 - 18 CCF)	\$2.69	\$0.34	\$3.03
Tier 3 (19-30 CCF)	\$5.35	\$0.68	\$6.03
Tier 4 (above 30 CCF)	\$6.61	\$0.84	\$7.45
Agriculture	\$3.38	\$0.43	\$3.81
Multi-family	\$2.79	\$0.35	\$3.14
Commercial	\$2.92	\$0.37	\$3.29
Construction	\$4.25	\$0.54	\$4.79
Irrigation	\$3.30	\$0.42	\$3.72
Monthly Charge			
Meter Size (inch) (D)	Current Monthly Charge (E)	Water Reliability Emergency Storage Charge (WRESC)	Total Fixed Charge
		(F)	(G)
5/8	\$15.11	\$16.50	\$31.61
3/4	\$15.11	\$16.50	\$31.61
1	\$21.76	\$26.39	\$48.15
1 1/2	\$39.77	\$39.59	\$79.36
2	\$58.99	\$52.78	\$111.77
3	\$121.56	\$79.17	\$200.73
4	\$211.50	\$105.56	\$317.06
6	\$525.81	\$158.34	\$684.15
10	\$1,372.71	\$224.32	\$1,597.03

Proposed Portola Hills Service Area Rates for Potable Water Service¹

The District proposes to create a separate potable water rate structure for the Portola Hills Service area that would consist of:

- 1) a single uniform² commodity rate of \$2.35 / CCF³ to pass-through the wholesale water rate charged by IRWD to the District,
- 2) a fixed monthly charge shown in Column E in Table 1;
- 3) removes the WRESC from the Portola Hills Service Area rate structure;
- 4) suspends the TRSC.

The resulting proposed rate structure is shown in Table 2 and consists of a uniform rate for all classes and a monthly meter charge. The basis for this rate structure is discussed below.

Table 2: Proposed Portola Hills Service Area Rate Structure and Rates

Customer Class (A)	Use Rate (\$ / CCF) (B)	Meter Size (inch) (E)	Monthly Charge (F)
All Classes	\$2.35	5/8	\$15.11
		3/4	\$15.11
		1	\$21.76
		1 1/2	\$39.77
		2	\$58.99
		3	\$121.56
		4	\$211.50
		6	\$525.81
		10	\$1,372.71

Portola Hills Service Area Water Rate Structure Basis

The Proposed Portola Hills Service Area water rate structure better aligns Portola Hills Service Area customer rates with the current cost to serve those District customers as described below.

Volumetric Rate

The uniform volumetric rate of \$2.35/ ccf is the current IRWD wholesale water rate that IRWD charges the District for water served to the Portola Hills Service Area and is derived as shown in the Table 3. Under the proposed revised rate structure, this rate will be passed-through to Portola Hills Service Area customers. The

¹ The District does not offer or provide non-potable water service within the Portola Hills Service Area.

² The term “uniform” is used in rate setting to mean that it is a single rate applied to all water use. This is opposed to “tiered” rates in which the rate increases as a customer’s water use crosses set tier breakpoints (usage totals).

³ CCF stands for hundred cubic feet, 1 ccf is equal to 748 gallons.

total wholesale rate includes a 5% surcharge to account for water loss and includes a pumping surcharge to cover energy costs to pump water to the Portola Hills Service Area. Passing through this wholesale charge to Portola Hills Service Area customers reflects the District's current cost of water for this service area. The inter-agency agreement between the District and IRWD is on file with the District for reference purposes.

Table 3: Portola Hills Service Area Volumetric Rate Derivation

IRWD Wholesale Rate	(\$ / CCF)
IRWD Use Rate	\$1.90
Five Percent Surcharge to Account for Water Loss	\$0.10
IRWD Pumping Surcharge	\$0.35
Total Wholesale Use Rate	\$2.35

Monthly Fixed Charge

The Monthly (Fixed) Charge shown in column F of Table 2 is the same as the Monthly Charge, shown in column E of Table 1, for all other District customers. The Monthly Charge for the Portola Hills Service Area recovers District costs for reading and maintains meters, billing and customer service.

Removal of the WRESC

The District is responsible for serving water to the Portola Hills Service area. The District incurs capital and operation and maintenance costs associated with serving water to its customers. Capital costs incorporated in the WRESC include the:

- 1) Baker Water Treatment Plant;
- 2) Trabuco Creek Wells Facility; and
- 3) A 2 million-gallon water reservoir and distribution improvements.

The capital projects shown above were designed to meet customer demands and can be reasonably allocated to the demands placed on the water system based on the hydraulic capacity of metered connections. The above project costs are recovered from the WRESC, which is a fixed meter-based charge based on the size of a customer's meter.

The Baker Water Treatment Plant and the Trabuco Creek Wells Facility (items 1 and 2 above) were designed and constructed based on the population/accounts served by the District, which includes the Portola Hills Service area. The reservoir and distribution improvements (item three above) were not designed to serve Portola Hills Service Area customers and therefore Portola Hills customers are being allocated costs for (only) their share, over time, of items 1 and 2. Based on a review of the revenue collected from Portola Hills customers, the District recognizes that these customers have paid their share towards the Baker Water Treatment Plant and the Trabuco Creek Wells Facility (items 1 and 2) as derived in Tables 4 through 6 below.

Table 4 shows the number of equivalent meters⁴ in the Portola Hills area and District wide – the Portola Hills Service Area has 10% of the equivalent connections.

Table 4: Calculation of Equivalent Connections

Customer	No. of Equivalent Connections	Percent
Portola Hills Equivalent Meters	538	10%
All Other District Customer Equivalent I	4,663	90%
Total Equivalent Meters (All Customers)	5,201	100%

Table 5 shows the actual costs for the Baker Treatment Plant and the Trabuco Creek Well Projects.

Table 5: Baker Treatment Plant and Trabuco Creek Well Project Costs

Actual Project Costs	Cost
Baker Water Treatment Plant	\$4,792,483
Trabuco Creek Wells Facility	\$4,995,320
Total Cost	\$9,787,803

Table 6 shows the estimated revenue collected over time from the Portola Hills Service Area in column F. Table 7, column C, shows Portola Hills share of the above capital projects and shows that Portola Hills customers have, effective as of the end of August 2018, contributed their allocated portion of these capital projects costs. Therefore, we recommend the removal of the WRESC charge for the Portola Hills Service Area customers.

⁴ Equivalent meters/connections account for the potential flow through different meters sizes. For example, the potential flow through a two - inch meter is five times that of a $\frac{3}{4}$ inch meter. Therefore, one two-inch meter is equivalent to 5 – $\frac{3}{4}$ inch meters. Total equivalent meters are the equivalent number of 5/8 and $\frac{3}{4}$ inch meters which are the standard meters for single family customers.

Table 6: Calculation of WRESC Charge Revenue from Portola Hills Service Area Customers

Portola Hills		WRESC Charge (C)	Yearly Revenue (D)
Meter Size (A)	Meter Count (B)		
5/8	463	\$16.50	\$91,674
3/4	70	\$16.50	\$13,860
1	0	\$26.39	\$0
1 1/2	0	\$39.59	\$0
2	1	\$52.78	\$633
3	0	\$79.17	\$0
4	0	\$105.56	\$0
6	0	\$158.34	\$0
10	0	\$224.32	\$0
Total	534		\$106,167

Fiscal Year (E)	Receipts (F)
2010	\$106,167
2011	\$106,167
2012	\$106,167
2013	\$106,167
2014	\$106,167
2015	\$106,167
2016	\$106,167
2017	\$106,167
2018	\$106,167
	\$955,506

Table 7: Comparison of Portola Hills Service Area Payments and Responsibility

	Total Cost of Baker Water Treatment Plant and Trabuco Creek Wells (A)	Portola Hills Share of Equivalent Connections (B)	Portola Hills Responsibility (C = A x B)	Estimated Portola Hills Receipts to Date (D)	Difference (E)
Portola Hills Responsibility	\$9,787,803	10%	\$978,780	\$955,506	\$23,274

Suspension of the Temporary Revenue Stabilization Charge

The District's TRSC is a temporary charge that is designed to recover lost revenue due to significant reductions in potable water use caused by drought conditions and the mandates resulting from the statewide drought emergency and which resulted in significant decreases in the District's potable water revenue. The

TRSC was designed to allow the District to recover necessary revenue (cash flow) to cover fixed costs during a drought, when customers reduce water use substantially which substantially decreases the District's revenue. The TRSC is subject to the Board of Directors' periodic review. According to District staff, the imposition and collection of the TRSC is scheduled to be reviewed in the first half of Fiscal Year 2018/2019. It is likely that staff will recommend the suspension of the TRSC for *all* District customers in the near term and therefore it is not part of the proposed Portola Hills Service Area water rate structure. Staff will likely recommend the suspension of the TRSC due to the District attaining its reserve and revenue goals as customers slowly use more water due to the suspension of mandatory statewide conservation requirements.

Proposition 218 Requirements

Proposition 218 requires that rates shall not exceed the costs required to provide service. The proposed Portola Hills Service Area rates do so by passing-through the District's water purchase costs from IRWD and recovering the District's costs to read and maintain meters as well as bill customers and provide customer service.

Estimated Customer Bill Impacts

Table 8 below shows the estimated average water bill impact for Portola Hills customers assuming 17 CCF of water use – which is the average use for Single Family customers in the District.

Table 8: Portola Hills Service Area Average Bill Impact

	Fixed Charge	Volumetric Charge	Total Water Bill
Current Rates and Charges	\$31.61	\$43.57	\$75.18
Proposed Rates and Charges	\$15.11	\$39.87	\$54.98
Difference			\$20.21
(Does not include the TRSC)			

District Financial Impact Review

With the removal of the WRESC and TRSC from the Portola Hills Service Area water rate structure, as well as the proposed lower uniform rate, the District's revenues from this portion of its service area will decrease. We suggest multiplying all accounts in Portola Hills Service Area by the WRESC charge (x 12) to assess the yearly fiscal impact. Similarly, we suggest identifying the water use by Portola Hills customers and comparing the revenue between the District's current water rates (which include the TRSC) and the proposed Portola Hills Service Area water rate structure to determine the overall impact to the District's revenues.